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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,920	02/27/2002	Alan B. Nierenberg	124736-1040	4885

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SQUIRE, SANDERS & DEMPSEY L.L.P.
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EXAMINER

CIRIC, LJILJANA (LIL) V

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,920

Applicant(s)

NIERENBERG, ALAN B.

Examiner

Ljiljana (Lil) V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 Jan 2006, 10 Apr 2006, 17 Jul 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060718</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the replies filed on 11 January 2006, 10 April 2006, and 17 July 2006.
2. Claims 1 through 7 remain in the application, of which claims 4 through 7 remain withdrawn as being drawn to a previously non-elected invention.

Response to Arguments

3. Applicant's arguments filed on January 11, 2006 with respect to claims 1 through 3 as have been considered but are moot in view of the new grounds of rejection presented herein.

Election/Restrictions

4. Claims 4 through 7 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 3, 2003.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s): the vaporizer being disposed *within the LNG carrier hull* as newly recited in claim 1 as amended, and at least one heat exchanger disposed *outside of the LNG carrier hull* as newly recited in claim 1 as amended. **No new matter should be entered.**

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a

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drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 1 through 3 are objected to because of the following informalities: "at least one" should be inserted immediately preceding "heat exchanger" [claim 1, line 9; claim 2, line 1; claim 3, line 1] for improved consistency and clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1 through 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, whereas the originally filed disclosure provides sufficient support for reciting that the at least one heat exchanger is located externally to or outside of the hull of the LNG carrier, the originally filed specification fails to provide sufficient support for now reciting that the vaporizer is specifically located within the hull of the LNG carrier. For example, the originally filed drawings fail to show an LNG carrier hull and thus also fail

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to show the vaporizer as being located specifically within the LNG carrier hull. Also, the originally filed disclosure as a whole merely states that the vaporizer may be located *on board* the LNG carrier; however, the limitation “on board an LNG carrier” is broader and more general than the limitation “within an LNG carrier hull” now being recited in the claims. Thus, the new recitation of the vaporizer being located “within an LNG carrier hull” is more specific than is supported by the originally filed disclosure and thus constitutes new matter in the claims.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1 through 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1 as amended, it is not clear whether the limitation “an LNG carrier hull” in line 3 of the claim is intended to refer to the hull of the LNG carrier recited in the preamble of the claim or to the hull of some other LNG carrier.

With regard to claim 3 as written, it is also still not clear whether the water in which the at least one heat exchanger is submerged is sea water in which the LNG carrier is floating or any water.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. As best can be understood in view of the indefiniteness of the claims, claims 1 through 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Morrison (U.S. Patent No. 2,940,268, previously of record).

Morrison discloses an LNG carrier or vessel 24 including: a vaporizer or boiler 38 for vaporizing LNG 40 to a vaporized state, the boiler or vaporizer 38 being disposed within the hull of the LNG carrier 24 as shown in Figure 3, for example; at least one heat exchanger or chiller 54 outside of the hull of the LNG carrier 24, also as shown in Figure 3, for example; at least one pump 50 for circulating an intermediate fluid or eutectic between the vaporizer or boiler 38 and the at least one heat exchanger or chiller 54, with the at least one heat exchanger or chiller 54 being configured to transfer heat to the intermediate fluid or eutectic flowing into the chiller or heat exchanger via line 53 and flowing out of the chiller or heat exchanger via line 55 [see column 2, line 69 and column 3, lines 1-5; note that the eutectic or intermediate fluid flowing through lines 53 and 55 is warmed within the heat exchanger or chiller 54, whereas the brine flowing through lines 57 and 59 is cooled within the heat exchanger or chiller 54]; the at least one heat exchanger is attached to an exterior of the LNG carrier 24 via lines 51 and 53. With regard to claim 3 of the instant application as written, the zigzag line connecting lines 53 and 55 within brine chiller 54 may be said to be readable on the at least one heat exchanger as recited in the claims, with the brine or salt water in which this “heat exchanger” is submerged within chiller 54 being readable on the water as recited in claim 3. Alternately with regard to the claims as written, transfer medium 54a which floats in the water surrounding the vessel or LNG carrier 24 [see column 3, lines 5-7] may also be broadly readable as required on the heat exchanger which is at least partially submerged in water as recited in claim 3 of the instant application.

The reference thus reads on the claims.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d

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887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1 through 3 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over at least claims 1 through 5 of U.S. Patent No. 6,598,408 B1 (issued to applicant Nierenberg on July 29, 2003, previously made of record). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 through 5 of the patent merely recite, for example, an additional heat exchanger as at least a secondary source of heat (i.e., a duplicate or secondary heat exchanger in addition to the primary source of heat which corresponds to the at least one heat exchanger as recited in the claims of the instant application), but it is generally neither inventive to duplicate parts (i.e., sources of heat or heat exchangers in this instance) for a multiplied effect nor is it generally inventive to eliminate an element (i.e., a source of heat or one of the heat exchangers) and its function if the remaining elements perform the same functions as before. See *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11 (7th Cir 1977) and *In re Karlson*, 136 USPQ 184 (CCPA 1963).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible schedule, but can normally be reached on Mondays through Fridays from 10:30 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached at 571-272-4929.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained

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from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ljiljana (Lil) V. Ciric
Primary Examiner
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